DETAILED ACTION

Status of Claims

1.   This action is in reply to the amendment filed on December 16, 2009.

2.   Claims 1, 4-7 and 20 have been amended.

3.   Claim 23 has been added.

4.   Claims 1-2, 4-13, 17-20 and 23 are currently pending and have been examined.

Continued Examination Under 37 CFR 1.114

5.   A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on December 16, 2009 has been entered.

Claim Rejections - 35 USC § 112

7.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8.   Claims 4-8, 20 and 23 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

6.   Applicant has amended the claims 4-7 and 20 and added claim 23 to include parsing steps. The specification at page 29, paragraph 2, describes a page parser that parser XML pages to extract

desired information with respect to education. The parser identifies information by tags in the XML pages.

7.   Claims 4-7 appear to perform the parsing in order to place standardized codes (XML tags) and creating XML pages as a result of the parsing. Claim 6 requires the parsing to embed XML tags. As disclosed by the specification, the parser parses XML pages with existing XML tags. No disclosure is provided for the parsing to result in the embedding of XML tags or the creation of an XML page.

8.   Similarly, claim 20 recites that the parsing results in the XML tags and the creation of the XML pages. Further, the parsing includes "delimiting a first potion...with identical XML tags to reflect an equivalence of data type therebetween..."

9.   Claim 23 recites parsing text from catalogs by data type.

10.   The specification, in the cited portion regarding the functionality of the parser, does not provide support for these limitations.

Claim Rejections - 35 USC § 103

11.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

19.   <u>**Claims 1-2, 9-13 and 17-19**</u> are rejected under 35 U.S.C. 103(a) as being unpatentable over Hall (US Pub. No. 2002/0049743) in view of Fields et al. (US Pub. No. 2003/0055842, hereinafter referred to as "Fields") in view of Oni (US Pub. No. 2004/0133546) in view of Curriculum Sequencing (found at http://www10.org/cdrom/papers/207/node5.html, published 2001-02-13).

20.   **Claim 1:** Hall, at P[0029], discloses first and second pluralities of courses from first and second institutions where the first institution has degree requirements. Hall discloses an example degree

plan for zoology where the system assembles a course map of courses available from various academic content providers (i.e., first and second institutions) which are required for the zoology degree (thus courses are collectively presented that satisfy degree requirements). Hall discloses identifying equivalency of courses. (P[0022]: aggregator correlates courses from a junior college to their equivalent at a university and P[0023]: substantially identical courses are offered). The course information is further categorized by variables, including course availability and location (i.e., course scheduling information) and course prerequisites (thus the information is organized in a hierarchy of requirements) (P[0029]). Clients (i.e., students) have access to degree plans (P[0021]), thus students select a first degree.

21. Hall does not disclose comparing by a computer system, text characterizing course content of the first and second plurality of courses.

22. Fields, however, discloses a system where keywords from course descriptions are compared and a match percentage is calculated and used to determine equivalency. (P[0027-0028]).

23. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have included Fields' method of determining equivalent courses in the system of Hall for the motivation of correlating transfer credits to another institution, as well as determining a "substantially identical course" (Hall; P[0024]).

24. Hall discloses performing informal equivalency for transfer credit (P[0022]) and a rewards program that functions to persuade a student to select from "substantially identical" courses offered by differing institutions. (P[0024]). Hall discloses a storage database connected to the aggregator (Fig. 1). Hall does not explicitly disclose that the records of the database reflect equivalencies between first and second pluralities of courses.

25. Oni, however, discloses database 317 (P[0054]), the ability to substitute courses with other "compatible, institutionally acceptable courses" (P[0085] and [0090] and Fig. 11K).

26. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have included a database of equivalencies, as disclosed by Oni, in the system of Hall for the motivation of speeding processing of requests for course information. It is obvious for Hall's

database to store equivalency information for administration of the rewards program. It is also obvious for the database to store equivalency information used to create the course map of P[0029] of Hall.

27. Further, the Examiner contends that "records reflecting the equivalencies" is non-functional descriptive material. The records of the database are not functionally related to the method steps, therefore, the descriptive nature of the records is **nonfunctional descriptive data** and is not functionally involved in the steps recited. **The storing of a database would be performed regardless of description content of the database.** Thus, this descriptive data will not distinguish the claimed invention from the prior art in terms of patentability, *see In re Gulack,* 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983); *In re Lowry,* 32 F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994).

28. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included records reflecting equivalencies because such data does not functionally relate to the steps in the method claimed and because the subjective interpretation of data records in a database does not patentably distinguish the claimed invention.

29. Hall discloses equivalent courses (P[0022 and 0024]) and generating a degree plan (P[0029]) does not disclose organizing or populating this information into a dependency graph.

30. Curriculum Sequencing, however, discloses "topics are represented in a dependency graph, with links representing the relationship between topics, which include prerequisite, co-requisite, related, and remedial." (pg. 1; para. 1).

31. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included organizing the degree plan of Hall into the dependency graph of Curriculum Sequencing for the motivation of providing a method of visually depicting the courses required for a degree and their relationships. Hall discloses that courses have prerequisites, therefore it is an obvious expansion to use a graphical technique to show these relationships.

32. **Claim 2:** Hall discloses data mining. (P[0026]) and access to university curricula and course schedules (i.e., catalog information).

33.   **Claims 10 and 11:** Hall discloses a student selecting a course from a given provider based on
       cost. (P[0024]) and filtering search results based on relevancy to the client's query. (P[0028]).

34.   **Claims 12 and 13:** Hall discloses course availability (i.e., scheduling information) and generating
       a "custom course map degree plan based on course offerings". (P[0029]). The custom course
       map is understood to comprise a class schedule as it is based on course offerings, availability
       and location.

35.   **Claim 17:** Hall discloses transferring credits (P[0022]). Hall further discloses viewing the degree
       plan with the courses needed to be completed in order to obtain the degree. (P[0029]). Thus, the
       transferred courses are imported such that only the courses needed to be completed are viewed.

36.   **Claims 18 and 19:** Hall discloses the Internet and servers. (P[0019-0020]).

37.   <u>Claims 4, 5, 7 and 8</u> are rejected under 35 U.S.C. 103(a) as being unpatentable over Hall (US
       Pub. No. 2002/0049743) in view of Fields et al. (US Pub. No. 2003/0055842, hereinafter referred
       to as "Fields") in view of Oni (US Pub. No. 2004/0133546) in view of Curriculum Sequencing
       (found at http://www10.org/cdrom/papers/207/node5.html, published 2001-02-13) and in further
       view of ABA ("Data that supports 1 to 1". American Bankers Association. ABA Banking Journal.
       New York: Oct 2000. Vol. 92, Iss.10; pg. 60).

38.   **Claims 4, 5, 7 and 8:** Hall does not disclose a standardized coding system created by an
       unaffiliated third party or parsing analogous text with standardized codes to enable comparison.

39.   Fields, however, discloses determining equivalent course information using course title and
       keyword matching (i.e., text) with a match percent threshold (P[0027-0028]). Fields does not
       disclose standardized codes created by an unaffiliated third party.

40.   ABA discloses that the American Institute of Certified Public Accountants and a consortium of
       tech and accounting firms (i.e., an unaffiliated third party) created a common taxonomy of
       financial terms by applying XML tags so that data could be universally exchanged and shared.
       Investors using an XML-capable browser can now perform side-by-side comparisons of
       companies (thus the data is displayed in an XML web page). (pg. 2; para. 13-16).

41.   Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention
        to have included a third party creating standardized codes (using XML tags) to enable
        comparison, as disclosed by ABA, in the system of Fields for the motivation of facilitating transfer
        credit determinations. In P[0049], Fields discloses that future transferees from the same college
        will have their information evaluated against the stored course description. By expanding Fields
        to include a standardized code, the evaluation is simplified.

42.   It also would have been obvious to one of ordinary skill in the art at the time of the invention to
        have included Fields' method of determining analogous courses in the system of Hall for the
        motivation of correlating transfer credits to another institution, as well as determining a
        "substantially identical course" (Hall; P[0024]).

43.   <u>Claim 6</u> is rejected under 35 U.S.C. 103(a) as being unpatentable over Hall (US Pub. No.
        2002/0049743) in view of Fields et al. (US Pub. No. 2003/0055842, hereinafter referred to as
        "Fields") in view of Oni (US Pub. No. 2004/0133546) in view of Curriculum Sequencing (found at
        http://www10.org/cdrom/papers/207/node5.html, published 2001-02-13) and in further view of
        ABA ("Data that supports 1 to 1". American Bankers Association. ABA Banking Journal. New
        York: Oct 2000. Vol. 92, Iss.10; pg. 60) in further view of Danner et al. (US Pat. No. 6,711,618,
        hereinafter referred to as "Danner").

44.   **Claim 6:** Hall does not disclose XML tags embedded in HTML pages.

45.   Danner, however, discloses XML tags embedded in HTML code. (C8; L57-65).

46.   Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention
        to have included XML tags and pages, as disclosed by Danner, in the system of Hall for the
        motivation of providing formatting instructions and providing the content for display.

47.   <u>Claim 20</u> is rejected under 35 U.S.C. 103(a) as being unpatentable over Hall (US Pub. No.
        2002/0049743) in view of Fields et al. (US Pub. No. 2003/0055842, hereinafter referred to as
        "Fields") in view of ABA ("Data that supports 1 to 1". American Bankers Association. ABA

Banking Journal. New York: Oct 2000. Vol. 92, Iss.10; pg. 60) in view of Eguchi et al. ("Rule-based XML". Artificial Intelligence and Law. Dordrecht: 2002. Vol. 10, Iss. 4; pg. 283, hereinafter referred to as "Eguchi") in view of Oni (US Pub. No. 2004/0133546).

48.   **Claim 20:** Hall discloses

- offering first and second pluralities of courses from first and second institutions where the first institution has degree requirements. (P[0029]: an example degree plan for zoology where the system assembles a course map of courses available from various academic content providers (i.e., first and second institutions) which are required for the zoology degree (thus courses are collectively presented that satisfy degree requirements).

- identifying equivalency of courses. (P[0022]: aggregator correlates courses from a junior college to their equivalent at a university and P[0023]: substantially identical courses are offered).

- presenting the plurality of degrees to a student. (P[0021]).

- selecting a first degree (P[0021]: Clients (i.e., students) have access to degree plans thus students select a first degree and P[0029]: zoology is degree exemplified.)

- populating and presenting a curriculum with selected courses satisfying, according to the equivalencies, the first degree requirements (P[0022 and 0024]: equivalent courses are determined; P[0029]: degree plan is selected with a variety of courses offered by different content providers. A custom course map (i.e., curriculum) is created based on the course offerings from multiple content providers.)

49.   Hall does not disclose parsing first and second text with XML tags to create XML pages, delimiting a first and second potion with identical XML tags to reflect equivalence of datatype, providing the XML pages on a computer network or mining the pages to create a record of courses.

50.   Fields, however, discloses determining equivalent course information using course title and keyword matching (i.e., text) with a match percent threshold (P[0027-0028]).

51.   Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have included Fields' method of determining equivalent courses in the system of Hall for the motivation of correlating transfer credits to another institution, as well as determining a "substantially identical course" (Hall; P[0024]).

52.   ABA discloses a common taxonomy of financial terms by applying XML tags so that data could be universally exchanged and shared. Investors using an XML-capable browser can now perform side-by-side comparisons of companies (thus the data is mined from and is displayed in an XML web page). (pg. 2; para. 13-16). The use of "commonly defined tags" that result in "side-by-side comparisons" and automate financial reporting inherently comprise identical XML tags.

53.   Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have included using identical XML tags in XML pages to enable comparison through mining, as disclosed by ABA, in the system of Fields for the motivation of facilitating transfer credit determinations. In P[0049], Fields discloses that future transferees from the same college will have their information evaluated against the stored course description. By expanding Fields to include a standardized code such as a common taxonomy for XML tags, the evaluation is simplified.

54.   It also would have been obvious to one of ordinary skill in the art at the time of the invention to have included Fields' method of determining analogous courses in the system of Hall for the motivation of correlating transfer credits to another institution, as well as determining a "substantially identical course" (Hall; P[0024]).

55.   Eguchi discloses that XML tags delimit information and establish a structure using a parser to locate the tags to extract the information. (pg. 2; para. 4).

56.   Therefore, it would have been obvious to one of ordinary skill in the art to include in the parser and delimiting of Eguchi in the common taxonomy XML-based system as taught by ABA since the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

57.   Hall discloses performing informal equivalency for transfer credit (P[0022]) and a rewards
        program that functions to persuade a student to select from "substantially identical" courses
        offered by differing institutions. (P[0024]).   Hall discloses a storage database connected to the
        aggregator (Fig. 1).   Hall does not explicitly disclose that the records of the database reflect
        equivalencies between first and second pluralities of courses.

58.   Oni, however, discloses database 317 (P[0054]), the ability to substitute courses with other
        "compatible, institutionally acceptable courses" (P[0085] and [0090] and Fig. 11K).

59.   Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention
        to have included a database of equivalencies, as disclosed by Oni, in the system of Hall for the
        motivation of speeding processing of requests for course information.   It is obvious for Hall's
        database to store equivalency information for administration of the rewards program.   It is also
        obvious for the database to store equivalency information used to create the course map of
        P[0029] of Hall.

60.   Further, the Examiner contends that "records reflecting equivalencies" is non-functional
        descriptive material.   The records of the database are not functionally related to the method
        steps, therefore, the descriptive nature of the records is **nonfunctional descriptive data** and is
        not functionally involved in the steps recited.   **The storing of a database would be performed
        regardless of description content of the database.**   Thus, this descriptive data will not
        distinguish the claimed invention from the prior art in terms of patentability, *see In re Gulack,* 703
        F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983); *In re Lowry,* 32 F.3d 1579, 32 USPQ2d
        1031 (Fed. Cir. 1994).

61.   Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention
        was made to have included records reflecting equivalencies because such data does not
        functionally relate to the steps in the method claimed and because the subjective interpretation of
        data records in a database does not patentably distinguish the claimed invention.

62.   <u>Claim 23</u> is rejected under 35 U.S.C. 103(a) as being unpatentable over Hall (US Pub. No.

2002/0049743) in view of Fields et al. (US Pub. No. 2003/0055842, hereinafter referred to as

"Fields") in view of ABA ("Data that supports 1 to 1". American Bankers Association. ABA

Banking Journal. New York: Oct 2000. Vol. 92, Iss.10; pg. 60) in view of Eguchi et al. ("Rule-

based XML". Artificial Intelligence and Law. Dordrecht: 2002. Vol. 10, Iss. 4; pg. 283, hereinafter

referred to as "Eguchi").

63.   **Claim 23:** Hall discloses

- identifying a first and second catalog (P[0009]: aggregators has relationships with content

    providers and has access to an organization's databases that store institutional knowledge

    (i.e., a catalog) and P[0021]: aggregator provides access to subjects and course schedules

    (i.e., a catalog).)

- offering first and second pluralities of courses from first and second institutions where the first

    institution has degree requirements. (P[0029]: an example degree plan for zoology where the

    system assembles a course map of courses available from various academic content

    providers (i.e., first and second institutions) which are required for the zoology degree (thus

    courses are collectively presented that satisfy degree requirements).

- identifying equivalency of courses. (P[0022]: aggregator correlates courses from a junior

    college to their equivalent at a university and P[0023]: substantially identical courses are

    offered).

- presenting the plurality of degrees to a student. (P[0021]).

- selecting a first degree (P[0021]: Clients (i.e., students) have access to degree plans thus

    students select a first degree and P[0029]: zoology is degree exemplified.)

- selecting first and second courses. (P[0029]: information on zoology courses offered by each

    content provider are retrieved.)

- populating and presenting a curriculum with selected courses satisfying, according to the

    equivalencies, the first degree requirements (P[0022 and 0024]: equivalent courses are

    determined; P[0029]: degree plan is selected with a variety of courses offered by different

content providers. A custom course map (i.e., curriculum) is created based on the course offerings from multiple content providers.)

64. Hall does not disclose comparing by a computer system, text characterizing course content of the first and second plurality of courses. Note: course content is text from a catalog.

65. Fields, however, discloses a system where keywords from course descriptions are compared and a match percentage is calculated and used to determine equivalency. (P[0027-0028]).

66. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have included Fields' method of determining equivalent courses in the system of Hall for the motivation of correlating transfer credits to another institution, as well as determining a "substantially identical course" (Hall; P[0024]).

67. Hall does not disclose a standardized coding system created by an independent third party or using identical standardized codes.

68. ABA discloses that the American Institute of Certified Public Accountants and a consortium of tech and accounting firms (i.e., an unaffiliated third party) created a common taxonomy of financial terms by applying XML tags so that data could be universally exchanged and shared. Investors using an XML-capable browser can now perform side-by-side comparisons of companies (thus the data is mined from and is displayed in an XML web page). (pg. 2; para. 13-16). The use of "commonly defined tags" that result in "side-by-side comparisons" and automate financial reporting inherently comprise identical XML tags.

69. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have included using identical XML tags in XML pages to enable comparison through mining, as disclosed by ABA, in the system of Fields for the motivation of facilitating transfer credit determinations. In P[0049], Fields discloses that future transferees from the same college will have their information evaluated against the stored course description. By expanding Fields to include a standardized code such as a common taxonomy for XML tags, the evaluation is simplified.

70.   It also would have been obvious to one of ordinary skill in the art at the time of the invention to
        have included Fields' method of determining analogous courses in the system of Hall for the
        motivation of correlating transfer credits to another institution, as well as determining a
        "substantially identical course" (Hall; P[0024]).

71.   Hall does not disclose parsing text by data type and delimiting data types using the standardized
        codes.

72.   Eguchi discloses that XML tags delimit information and establish a structure using a parser to
        locate the tags to extract the information. (pg. 2; para. 4-5: motions are sent to a validating parser
        to ensure the document complies with the Court Document Standard, thus the validated motions
        have test that is delimited by the same standardized coed (i.e., the XML tag) as the Court
        Document Standard).

73.   Therefore, it would have been obvious to one of ordinary skill in the art to include in the parser
        and delimiting of Eguchi in the common taxonomy XML-based system as taught by ABA since the
        claimed invention is merely a combination of old elements, and in the combination each element
        merely would have performed the same function as it did separately, and one of ordinary skill in
        the art would have recognized that the results of the combination were predictable.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should
be directed to Gabrielle McCormick whose telephone number is (571)270-1828. The examiner can
normally be reached on Monday - Thursday (5:30 - 4:00 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John
Weiss can be reached on 571-272-6812. The fax phone number for the organization where this
application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/G. M./
Examiner, Art Unit 3629

/JOHN G. WEISS/
Supervisory Patent Examiner, Art Unit 3629